# End of Project Report to the Iowa Power Fund Submitted by Jill Euken, Chair October 31, 2008

## **Project Summary:**

#### Attendance:

The 2008 Biobased Industry Outlook Conference was held September 7-10 on the Iowa State University campus. Over 750 people attended the plenary sessions on the morning of September 8<sup>th</sup>; 580 people registered for the full conference.

<u>Sponsorships:</u> \$92,500 in sponsorships <u>in addition to the IPF</u> was secured for the conference (considered "match" to the IPF grant). Including the \$11,250 IPF sponsorship (\$12,500 minus overhead charges of \$1,250), the <u>total</u> amount contributed for conference sponsorships was \$103,750. A list of sponsors and the amount of sponsorship is listed in Appendix A. Sponsorship funds received from the Iowa Power Fund were used for supplies and materials. Please see Appendix B which documents the transfer of IPF grant funds internally at ISU and their use.

<u>Evaluations</u>: Participants were asked to complete evaluations for all breakout sessions and for the conference as a whole. Please find copies of the evaluations in Appendix C.

<u>Debriefing and Planning for 2009</u>: The conference planning committee met in a debriefing session on October 29<sup>th</sup>, 2008. The committee reviewed the evaluations and made the following general observations:

- Although there were a couple of people who indicated they did not like the point-counterpoint plenary sessions, overwhelmingly, the evaluations showed that people REALLY liked this format and the speakers. The committee felt this format should be continued for plenary sessions for the 2009 conference.
- Most respondents appreciated the tours. Tours should be included in the 2009 program.
- Most comments about the breadth of topics and speakers were very positive.

Although the conference still has accounts receivable and is still working with several speakers to finalize payments for their travel expenses, it appears 2008 conference income will cover all 2008 conference expenses, and provide some seed money for outreach efforts in 2009. The conference planning committee is exploring new ideas for outreach for 2009, including:

- Form a partnership with other Midwestern states to plan and execute a multi-state conference (November timeframe), with the following features:
  - Option to attend the conference at any participating institution (accessing sessions provided by other institutions via webcast);
  - Option for individuals to participate in the conference remotely, from any computer via webcast;
  - Point-counterpoint plenary session organized by ISU and shared via webcast with each participating institution and each individual registering to participate remotely;

- Each participating institution will organize one "breakout session" which will be broadcast to all participating universities and to all registrants participating remotely.
- Organize and conduct a "scientific workshop" (September, timeframe) which will be very targeted in scope; have a smaller, by-invitation-only participant list (~100 participants), and will likely be co-sponsored by a federal agency (i.e. DOE, USDA, EPA).
- Organize and conduct educational outreach efforts at the New Century Farm (NCF) to provide agricultural producers, investors in bioprocessing, and industry leaders with information about research being conducted at NCF (August timeframe).

Discussions about these outreach efforts will continue.

For questions/comments/suggestions regarding the 2008 conference, please contact:

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Appendix A:
2008 ISU Biobased Industry Outlook Conference
Sponsors

<u>Affiliation</u>	\$ Amt
Alliant Energy	\$10,000.00
BIOWA	\$2,500.00
ConocoPhillips	\$10,000.00
Grain Processing Corporation	\$2,500.00
Iowa Farm Bureau Federation (AgraGate Climate Credits Corporation)	\$2,500.00
Institute for Physical Research and Technology (IPRT)	\$2,500.00
ISU Center for Crop Utilization Research	\$2,500.00
ISU College of Agriculture & Life Science	\$5,000.00
CIRAS	\$5,000.00
Iowa State University Bioeconomy Institute (formerly the Office of Biorenewables	,
Programs)	\$10,000.00
ISU Climate Science Initiative	\$2,000
ISU Plant Sciences Institute (PSI)	\$5,000.00
John Deere	\$5,000.00
Leopold Center for Agriculture	\$1,000.00
Monsanto	\$10,000.00
National Oceanic and Atmospheric Administration (NOAA)	\$4,000.00
Pioneer Hi-Bred, a DuPont business	\$10,000.00
Vermeer	\$2,500
Iowa Energy Center	\$5,000
-	
Sponsor "match" to IPF	\$92,500
lowa Power Fund sponsorship (minus overhea	ad) \$11,250
Grand total for sponsorships	\$103,750

# Appendix B

Fund Acct:

478-17-06

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Budget Categories	Budget	Expenses for OCT	Total Spent Through OCT	Unspent Balance
Salary/Hourly	0.00	0.00	0.00	0.00
Payroll Benefit	0.00	0.00	0.00	0.00
Equipment	0.00	0.00	0.00	0.00
TrvI-Domestic	0.00	0.00	0.00	0.00
TrvI-Foreign	0.00	0.00	0.00	0.00
Student Tuitn	0.00	0.00	0.00	0.00
Supplies/Mtrls				
Ag & Vet	0.00	0.00	0.00	0.00
Lab/Rsrch	0.00	0.00	0.00	0.00
Other Sply	11,250.00	0.00	0.00	11,250.00
Tot-Sply/Mt	11,250.00	0.00	0.00	11,250.00
Subcontracts				
Subj to IDC	0.00	0.00	0.00	0.00
Not Subj	0.00	0.00	0.00	0.00
Tot-Subcntr	0.00	0.00	0.00	0.00
Other Dir Costs				
Telecom Chrg	0.00	0.00	0.00	0.00
Comptr Usage	0.00	0.00	0.00	0.00
Print/Copy	0.00	0.00	0.00	0.00
Honor/Srvcs	0.00	0.00	0.00	0.00
Postage	0.00	0.00	0.00	0.00
Other	0.00	11,250.00	11,250.00	(11,250.00)
Tot-Oth Dir	0.00	11,250.00	11,250.00	(11,250.00)
Advncs Outstd	0.00	0.00	0.00	0.00
Pgrm Income TOTAL DIRECT	0.00 <b>11,250.00</b>	0.00 <b>11,250.00</b>	0.00 <b>11,250.00</b>	0.00 <b>0.00</b>
Indirect Costs	1,250.00	0.00	0.00	1,250.00
TOTL ALL COSTS	12,500.00	11,250.00	11,250.00	1,250.00
Revenue	Award	MTD Recvd	Tot Recvd	To be Recvd
Alloc/Tfr-In		0.00	0.00	
Receipts		0.00	0.00	
TOTAL REVENUE	12,500.00	0.00	0.00	12,500.00

<b>Budget Categories</b>	Unpaid Commitments	Balance Per Acctg Records	Dept Commit	Balance Per Dept Records
Salary/Hourly	0.00	0.00	0.00	0.00
Payroll Benefit	0.00	0.00	0.00	0.00
Equipment	0.00	0.00	0.00	0.00
TrvI-Domestic	0.00	0.00	0.00	0.00
TrvI-Foreign	0.00	0.00	0.00	0.00
Student Tuitn	0.00	0.00	0.00	0.00
Supplies/Mtrls				
Ag & Vet	0.00	0.00	0.00	0.00
Lab/Rsrch	0.00	0.00	0.00	0.00
Other Sply	0.00	11,250.00	0.00	11,250.00
Tot-Sply/Mt	0.00	11,250.00	0.00	11,250.00
Subcontracts				
Subj to IDC	0.00	0.00	0.00	0.00
Not Subj	0.00	0.00	0.00	0.00
Tot-Subcntr	0.00	0.00	0.00	0.00
Other Dir Costs				
Telecom Chrg	0.00	0.00	0.00	0.00
Comptr Usage	0.00	0.00	0.00	0.00
Print/Copy	0.00	0.00	0.00	0.00
Honor/Srvcs	0.00	0.00	0.00	0.00
Postage	0.00	0.00	0.00	0.00
Other	0.00	(11,250.00)	0.00	(11,250.00)
Tot-Oth Dir	0.00	(11,250.00)	0.00	(11,250.00)
Advncs Outstd	0.00	0.00	0.00	0.00
Pgrm Income	0.00	0.00	0.00	0.00
TOTAL DIRECT	0.00	0.00	0.00	0.00
Indirect Costs	0.00	1,250.00	0.00	1,250.00
TOTL ALL COSTS	0.00	1,250.00	0.00	1,250.00
Revenue		Revenue Per Actg Recrds	Department Revenue	
Alloc/Tfr-In			0.00	
Receipts			0.00	
TOTAL REVENUE		12,500.00	0.00	12,500.00

## Appendix C: 2008 BioBased Industry Outlook Conference Evaluations

		Very tisfied		newhat tisfied	I	Neutral	Somewhat Dissatisfied		Very Dissatisfied		Total Response		Average Rating
Registration process	41	79%	8	15%	1	2%	2	4%	0	0%	52	98%	4.69
Facilities	39	75%	11	21%	1	2%	1	2%	0	0%	52	98%	4.69
Topics and Speakers	36	71%	10	20%	3	6%	2	4%	0	0%	51	96%	4.57
Schedule	28	54%	15	29%	4	8%	4	8%	1	2%	52	98%	4.25
Food and Beverage	30	30 58%		27%	6	12%	0	0%	2	4%	52	98%	4.35

What issues/topics were *not* covered in the conference that you would have liked to learn about? Can you recommend a speaker on this topic?

- None
- Reasons for the 'anti-bio' movement i.e. solar, nuclear, and wind folks. I would like to understand what besides \$ for their industries account for their dislike of biological contributions to the solution.
- I think all of the important areas were covered.
- Utility use of biomass; harvest, storage and processing; biofuel supply system plan; biofuel crop establishment; issues surrounding stover utilization
- You hit the ones that are relevant and current for me.
- You hit the ones that are relevant and current for me.
- Good set of topics.
- One missing topic is the end user of ethanol / bioenergy. Might be interesting to include automotive industry and fuel blenders to better understand their technology, needs, and philosophy on ethanol. Answer the question: How is ethanol usage going to increase?.
- Cassman from UNL
- Energy Independence domestic security, Is producing known carcinogens from biorenewables the right thing to do?
- I would like comparisons between total ethanol from corn and from all types of cellulose.
- As a farmer, I would have liked to have heard more about how to collect the biomass.

- Less about corn, more about dedicated energy crops and cropping systems for farm point of view.
- I would like to hear more on woody biomass
- The first day was not very useful point counterpoint. Very poor slides and presenters except one. Clear lack of practical connection with five of the six presenters. This was where the conference needs to go to the practical meaning and less for the theoretical concepts that economics will sort out. Develop in depth the question about removing stover from corn land; this is a key make or break point because many including ISU agronomists feel that this would not be good and yet so much research and investment is being predicated on it happening.
- A comparison of ethanol made from all kinds of products used around the world, plant samples, processes needed.
- Due to the nature of the conference it was not possible for many of the speakers to go into
  detail about experimental designs and analysis. While the information shared was excellent, the
  conference as a whole would not help guide future experimentation or even encourage much
  collaboration.
- I was less than satisfied on the breadth of bioeconomy topics that were covered. I think there's a lot more of value and interest within the state of lowa than just fuel needs -> product showings and bioproduct research topics have been minimally covered for the last few years.
- New developments in methods for making biofuel, like screening for enzymes that make biofuel or green chemicals, etc.
- More on links to climate and climate variability/change
- I would have liked to have seen one or more break-out groups directly addressing the land use and sustainability issues raised by the Monday point/counterpoint speakers. It is particularly valuable to hear more from bioenergy skeptics.
- I think that the next conference could adopt the point-counter-point format for a group of plenary sessions, and continue its scientific and developmental talks in breakout sessions. I think that the plenary sessions might contrast:
  - Point 1: a community with a bio-refinery that has experienced positive spin-offs and development of related forms and employment (maybe better land values? Or crop values? Or...)
  - Counterpoint 1: a community that has experienced no spin-offs, or even negative developments related to its bio-refinery (ex: air or water pollution, workers lost from existing firms to the bio-plant, an influx of higher-paid outsiders who displace locals, land values that preclude locals from entering farming or adding to their holdings, or finding that local decisions are now made by individuals or firms who are not there and do not care, or...?)
  - Point 2: an investor, or investment firm, or co-op that has made money on its biorefinery investment that has seen economic benefits spin-off from it to the local community.
  - Counterpoint 2: an investor or firm or co-op that has lost money, or lost control of its investments, or seen its community resources disadvantaged (ex: seen loans formerly available to locals dry up due to the better credit of the refinery owners? Or seen local civic services [Sewer? Water? Roads? School?] stressed by the bio-refinery to the detriment of the community/taxpayers supporting them, or...?
  - Point 3: a group that has maintained local control of a bio-refinery.
  - Counterpoint 3: one that has sold out to a national or international owner/investor.

As a wrap-up speaker who can synthesize the benefits and costs expressed by the participants, and what they mean for the nations, and what they mean for scientists seeking to benefit local residents, the state, the nation and the industry (if there is any linkage between the science and experience of local/state residents).

## What were the best sessions/topics/components of the conference for you personally?

- The plenaries and related hallway conversations, and the conversations related to the break-out sessions.
- Climate and crops
- The plenary sessions of Monday morning.
- The tours were the best. This was not available last year and I think this should be a staple for years to come. I also enjoyed the variety of feedstocks that were discussed.
- I truly enjoyed the Point-Counter Point session presented this year, I found it most informative. I applaud the organizers for including dissenting views in this section, which encouraged an overall healthy debate about the topics.
- Point/Counterpoint on the first day was excellent. The field trip on Biomass harvest storage, and transportation was very informative. Breakout sessions on changing the climate, coupled crop/climate modeling, carbon sequestration opportunities were all outstanding.
- Ted Crosbie crop production
- Point / Counterpoint Plenary Session
- The point/counterpoint was one of the top reasons I planned to attend the meeting.
- The point/counterpoint plenary sessions, gasification and pyrolysis, chemicals through bio and chemical pathways.
- The sessions on cellulosic harvesting equipment and storage. The century farm tour.
- I really enjoyed the Plenary lectures and how they were set up in a point-counterpoint style. I also really enjoyed being able to attend talks on the conversion of cellulose into ethanol, hydrocarbon products, and other co-products as I am generally on the other side of the production chain. Steve Flick's talk was also particularly notable.
- Utilization sessions relating to products and technology transfer/industrial use
- Point/Counterpoint Plenary Sessions were most interesting and beneficial for me. It was also very impressive to have Governor Culver speak.
- Evaluation of biodiesel and biolubricant performance
- The point/counterpoint session was excellent.
- Point/Counter Point and Tour Labs
- The breadth of topics offered altered my views of the area. I think the program was very good.
- Point/Counter Point and Tour Labs
- I was most interested in the harvesting / Storage session on corn cobs as well as the tour of the New Century Farm.
- Both the plenary discussion panel Monday morning and the tours on Monday afternoon were of high value to me. I would suggest building on this platform for the 2009 conference.
- Breakout 4 Biofuels and climate change.
- I particularly liked the parts of the meeting where speakers expressed different points of view.

- Climate workshop very good.
- As a university researcher / extensionist, hearing from the private companies and farmer groups in the biomass industry was the most valuable thing. They gave perspectives and updates that I'm not normally exposed to day-to-day.
- Plenary session, Case studies of Range Fuels and Go Show me Energy
- It was a diversity of topics that made a great difference...not just one topic!
- I participated in and enjoyed the community effects stream.
- HST at Century farm; Germplasm research and biofuel production
- Feeding the Dragon

#### **Additional Comments:**

- Had a good time. Good job!
- Very good event.
- I look forward to the next meeting.
- Great conference. One improvement would be to time the tours so that we could go to multiple tours. I am sure the other 2 tours were just as interesting as the century farm tour.
- As many of the speakers scheduled for the conference represented private entities (especially biofuel companies) little information could be shared about experimental design. I felt this did not encourage healthy debate or future collaborative efforts. In the future, it might be better to include more investigators from public institutions (i.e. universities and/or governmental oversight comities).
- I would like to take this opportunity to comment on why I was so dissatisfied with the food. I
  have been practicing vegetarian for over 5 years now mainly for reasons relating to the
  environmental conservation and minimizing my carbon footprint. This topic was covered in a
  number of the speakers presentation, nonetheless, at both of the lunches provided there was
  no vegetarian option available which was very disappointing. (Conference note: Vegetarian
  options were provided via tickets, if pre-indicated on registration)
- One of the farmers that I talked with during the post-conference workshop told me that he and other farmers he knows boycotted the conference because they objected to some of the speakers particularly Searchinger. I pointed out that it is important to know all sides of an issue, but he persisted that it was inappropriate to invite a speaker who was clearly antagonistic to farmers. I would have thought that representatives from farmer associations on the planning committee would have helped avoid such problems, but it seems not. I don't have a solution, but thought that you should be aware of the concerns of your constituents.
- I did not like the break in the middle of the first day for tours. It was an awkward time for people who were not really interested in any of the tours.
- I thoroughly enjoyed every aspect of this conference. It was extremely well planned and organized. It would be great if the tours (I participated in the gasification lab tours) were not so crowded. It was difficult to see the highlighted items and to hear the speaker. I hope to attend next year.
- The conference website was hard to navigate and not very friendly. The food choices could really have been better; I know that Scheman can do better than that. Especially the lunch at which Gov. Culver spoke.
- Excellent program overall. Thank you.
- I noticed there were very few female speakers on the Tuesday agenda.

# 2008 BioBased Industry Outlook Conference

## **Session Evaluation**

# **Feeding the Dragon**

Tuesday: Session 1

	Strongl	y Agree	Ag	ıree	Neither Disagree nor Agree		Dis	agree		ongly agree	Total Responses	Percent Responding
Interesting	11	61%	7	39%	0	0%	0	0%	0	0%	18	100%
Informative	8	44%	9	50%	1	6%	0	0%	0	0%	18	100%
Useful	9	50%	8	44%	1	6%	0	0%	0	0%	18	100%
Well Presented	12	67%	6	33%	0	0%	0	0%	0	0%	18	100%

#### **Overall Session Comments:**

- Very Good Presentation!
- The session would be informative as a general conversation, but very little that would directly impact or direct experimental designs.
- Very nice mix of speakers. Better than expected.
- Very good introductions/overviews of the topics.
- Could have been an additional 15 minutes.
- There is almost no reference to speaker presentation titles. Excellent speaker bios. Good information on speaker grouping within each section, but not titles. For speakers I know many handle multiple topics. For fields I am not familiar with, it is difficult to plan which sections I can learn the most.
- Q & A session was quite good.
- It is an excellent session. I especially like the question and answer session.

## **Individual Speaker Comments:**

- Especially enjoyed Hitz's presentation.
- Great conference!
- All are excellent.

	Strongly Agree Agree		Neither nor <i>i</i>	Dis	sagree	Strongly Disagree		Total Responses	Percent Responding			
Interesting	14	61%	9	39%	0	0%	0	0%	0	0%	23	100%
Informative	15	65%	8	35%	0	0%	0	0%	0	0%	23	100%
Useful	13	57%	10	43%	0	0%	0	0%	0	0%	23	100%
Well Presented	9	39%	12	52%	2	9%	0	0%	0	0%	23	100%

## **Overall Session Comments:**

- Nice discussion. Very good contrast/compliment among panel.
- Nuts and Bolts.
- Excellent Session!!
- Not really about plant breeding (except Lankey) as session title suggested, but very interesting. I notice that there is only one female speaker on the agenda for this entire four session track.
- Very good, nice group.
- Great job.
- Very good, nice diversity of presentations.
- Excellent. Good to have production and economic perspective.

Individual Speaker Comments: NONE

Tuesday: Session 3

	Strong	ly Agree	Ą	gree	Neither Disagree nor Agree		Disagree		Strongly Disagree		Total Responses	Percent Responding
Interesting	1	50%	1	50%	0	0%	0	0%	0	0%	2	100%
Informative	1	50%	1	50%	0	0%	0	0%	0	0%	2	100%
Useful	1	50%	1	50%	0	0%	0	0%	0	0%	2	100%
Well Presented	1	50%	0	0%	1	50%	0	0%	0	0%	2	100%

Overall Session Comments: NONE

Individual Speaker Comments: NONE

Tuesday: Session 4

	Stro	ngly Agree	A	gree		Neither Disagree nor Agree		gree	Strongly Disagree		Total Responses	Percent Responding
Interesting	2	50%	2	50%	0	0%	0	0%	0	0%	4	100%
Informative	4	100%	0	0%	0	0%	0	0%	0	0%	4	100%
Useful	2	50%	2	50%	0	0%	0	0%	0	0%	4	100%
Well Presented	3	75%	1	25%	0	0%	0	0%	0	0%	4	100%

Overall Session Comments: NONE

Individual Speaker Comments: NONE

## Utilization

Tuesday: Session 1

	Strong	ly Agree	Ą	gree	Neither Disagree nor Agree		Disagree		Strongly Disagree		Total Responses	Percent Responding
Interesting	2	29%	5	71%	0	0%	0	0%	0	0%	7	100%
Informative	4	57%	4	57%	0	0%	0	0%	0	0%	7	100%
Useful	2	29%	5	71%	0	0%	0	0%	0	0%	7	100%
Well Presented	3	43%	2	29%	2	29%	0	0%	0	0%	7	100%

# **Overall Session Comments:**

- Great Presentations!
- Some pictures on screen were too small in session 1
- Very good speakers. Thanks.
- Tong Wang & Vijay Singh good. Michael Morgan not as interesting.

Individual Speaker Comments: NONE

	Strong	ly Agree	A	Agree Neither Disagree nor Agree		Di	sagree	Strongly Disagree		Total Responses	Percent Responding	
Interesting	6	43%	7	50%	0	0%	0	0%	0	0%	13	93%
Informative	7	50%	7	50%	0	0%	0	0%	0	0%	14	100%
Useful	6	43%	3	21%	4	29%	0	0%	0	0%	13	93%
Well Presented	6	43%	5	36%	1	7%	0	0%	0	0%	13	93%

## **Overall Session Comments:**

- May wish to stress storage "housekeeping" or first in-first out where storage is cleaned out well before new product is placed into storage so that old product is not blended into back of storage for extended periods of time.
- Not what I expected. I wanted more uses for DDGS rather than conventional feeding methods.
- I found session interesting. I'm not a technical person, so some of the discussion was more in-depth than I require.
- Lawn mowing around the building created noise and distraction.

## **Individual Speaker Comments:**

• Steve Ensley- Good. Francis Fluharty- Interesting. Ron Belyea- Good.

Tuesday: Session 3

	Stro	ngly Agree		Agree	Neither Disagree nor Agree		Disagree			ongly agree	Total Responses	Percent Responding
Interesting	5	50%	5	50%	0	0%	0	0%	0	0%	10	100%
Informative	5	50%	4	40%	1	10%	0	0%	0	0%	10	100%
Useful	5	50%	4	40%	1	10%	0	0%	0	0%	10	100%
Well Presented	5	50%	5	50%	0	0%	0	0%	0	0%	10	100%

## **Overall Session Comments:**

• I miss not having abstracts on the talks to help decide between tracks.

- It is good to hear what is going on in the commercial world as far as its response to energy/oil.
- In enjoyed hearing about the performance aspects of alternative fuels and lubricants acceptance, performance compared to petroleum, emissions, etc.
- Good diversity of subject matter yet maintained a central theme.

Individual Speaker Comments: NONE

#### **Human, Social & Community Impacts of the Economy**

Tuesday: Session 1

	Strongly Agree		Agree		Neither Disagree nor Agree		Di	sagree	Strongly Disagree		Total Responses	Percent Responding
Interesting	4	44%	5	56%	0	0%	0	0%	0	0%	9	100%
Informative	4	44%	3	33%	2	22%	0	0%	0	0%	9	100%
Useful	4	44%	3	33%	2	22%	0	0%	0	0%	9	100%
Well Presented	3	33%	5	56%	1	11%	0	0%	0	0%	9	100%

#### **Overall Session Comments:**

- Not enough time for questions.
- An over over of the while day's programming for sociology would help.
- Would have appreciated more science tie-ins (green process) (environmental regs).
- Cohesion among presentations therefore it was pleasant to see the overall impact that corn-ethanol plants can have in rural communities.
- Informative but a lot of information was repeated.
- This was great and very well presented. The panelists did a very good job. This is a topic that is much needed and has been overlooked in past conferences. It is still obvious that it is a step child in the program why are all the "social" sessions places last in the program how biofuels impact rural lives should be the most important consideration of this transformation.
- Presentations did not address issues (indications) of ethanol production and land use impacts, address less in regard to environmental impacts like carbon emissions, what are the direct impacts at that level.

## **Individual Speaker Comments:**

Too much reading off the slides overall.

	Strongly Agree		Agree		Neither Disagree nor Agree		Di	sagree	Strongly Disagree		Total Responses	Percent Responding
Interesting	4	44%	4	44%	1	11%	0	0%	0	0%	9	100%
Informative	4	44%	4	44%	1	11%	0	0%	0	0%	9	100%
Useful	3	33%	4	44%	2	22%	0	0%	0	0%	9	100%
Well Presented	4	44%	4	44%	1	11%	0	0%	0	0%	9	100%

## **Overall Session Comments:**

- The use of PCs and text messaging by audience members has become prolific. It is astounding how many people are not paying attention to the presenters. Also, the noise of tapping on keyboards/keypads is annoying/distracting. Please request audience members curb their use of such electronics during sessions.
- Very good information, some cutting edge.
- Moderator dropped the ball several times working on other projects. Second speaker introduced herself before moderator realized 1<sup>st</sup> speaker was done.
- Moderator not very good- didn't introduce 2<sup>nd</sup> presenter- worked on her laptop vs. engaging us/audience & speaker.

Individual Speaker Comments: NONE

Tuesday: Session 3

	Strong	Strongly Agree Agree				Neither Disagree nor Agree			Strongly Disagree		Total Responses	Percent Responding
Interesting	5	100%	0	0%	0	0%	0	0%	0	0%	5	100%
Informative	5	100%	0	0%	0	0%	0	0%	0	0%	5	100%
Useful	5	100%	0	0%	0	0%	0	0%	0	0%	5	100%
Well Presented	5	100%	0	0%	0	0%	0	0%	0	0%	5	100%

## **Overall Session Comments:**

• Sobering, but not without hopeful signs.

## **Individual Speaker Comments:**

- David Swenson should become passionate about his studies. David Peters and J. Arbuckle presentations were clear and to the point.
- All were good but Dave Swenson's presentation was most engaging and thought-provoking.
- Like David Swenson

Tuesday: Session 4

	Strongly Agree		Agree			isagree nor gree	Di	sagree		ongly agree	Total Responses	Percent Responding
Interesting	2	40%	3	60%	0	0%	0	0%	0	0%	5	100%
Informative	3	60%	2	40%	0	0%	0	0%	0	0%	5	100%
Useful	2	40%	2	40%	1	20%	0	0%	0	0%	5	100%
Well Presented	2	40%	3	60%	0	0%	0	0%	0	0%	5	100%

## **Overall Session Comments:**

• Love the sociological insights and analysis. Too bad there wasn't more presenters at this session to give it the same power as other sessions.

## **Individual Speaker Comments:**

• Wynne's case study was interesting.

# **Corn and Climate Workshop**

	Strongly Agree		Agree			isagree nor gree	Di	sagree		ongly agree	Total Responses	Percent Responding
Interesting	14	54%	11	42%	1	4%	0	0%	0	0%	26	90%
Informative	16	62%	9	35%	1	4%	0	0%	0	0%	26	90%
Useful	7	27%	14	54%	5	19%	0	0%	0	0%	26	90%
Well Presented	9	35%	12	46%	4	15%	1	4%	0	0%	26	90%

#### **Overall Session Comments:**

- Very informative
- Good range of speaker topics, and all speakers made an effort to present data that all of us could understand and respond to
- We appreciate NOAA reaching out to Extension and others to bring useful data to users
- Anxious to have access to powerpoints
- Good food
- More time for questions
- Good opportunities for networking
- Many talks were too high level for non-meterologists
- Very good
- Excellent
- Most talks gave great "food for thought" on how either crop plants respond to WX, or how climate WX responds to humans
- Projector Problems
- Speakers took their presentations seriously and were well prepared
- Maybe a little too much on global change
- Needed more discussion and comments from extension folks and state climatologists about what the perceive Ag Producers value from climate data
- This was an outstanding meeting/workshop Kudos to Tackle it all and organizing it
- Too many speakers; got hard to absorb all of the information presented
- Need to distinguish better climate vs. weather and climate predictions over what time frames
- Too narrow focus on weather-related aspect of climate change, e.g. temperature and precipitation, need to look at ozone air quality, diseases, etc. that will also impact yields and decisions
- Call to action should be: How do we, with least amount of pain, reduce CHC
  emissions and slow atmospheric carbon increase. Making investment decisions
  and conclusions to prepare infrastructure for forty to one hundred year
  computer projections that may or may not be a reality is ridiculous. Agriculture
  may have more positive effects to productivity and profitability than negative
- Not enough focus on the Midwest.
- There was too much description of programs in existence and not enough information on general conclusions, regional differences, and strategy
- Excellent
- Enjoyed the Extension presentations
- A little too many presentations and presenters remember not all of Midwest is corn belt and may want to include other Ag segments
- Salient topic; too diffuse in content; lack of 2 or 3 focal issues
- Needed a presentation on concepts of risk and uncertainty
- It was really general
- Room could have been a little larger, people seemed pushed in

#### **Individual Speaker Comments:**

- They were all very good, the presentations were well planned, and all interesting
- Liked 11a.m. "Producers saying about crops and climate
- Liked Hoerling and MacDonald
- Great ending speaker
- Solid
- All good, and important part of program
- Great examples were shown by Roger Elmore and Kieth Ingram of how sophisticated tools might be used by Ag Producers. Gene Takle, Marty Hoerling, Mike Hayes did a great job of taking global change down to regional scale
- Keith Ingram was best speaker for me and he needed more time. Alexander MacDonald was next best
- Keith Ingram, Gene Takles, Dev Nigogly, Dennis Todey, Roger Elmore, Emarson N, Alexander MacDonald were the best
- Fantastic, Mind sobering
- Very good- knowledgeable speakers
- Too much promoting one's situation rather than addressing conference themes.
   Mac Donald, Hoerling, Wolf and Takle were "on-target" the most
- Each speaker was good

#### Recommendations for Future Conferences:

- More on what end users think of this info and what they will be doing. More users, less experts
- Follow-up on key opportunities identified at today's meeting. Two tracks one for climate and weather professionals and one for information users or farmers
- Announced widely; I did not know of this meeting before attending the other meeting otherwise I would have missed it
- What's next?
- More open discussion with panel format; the panelist gave good talks but left little room for dialogue
- What are micro-climate changes, if any, created by the increase in wind
- The obvious next step is to give farmers hands-on training with yield tools and web interfaces to climate data. This would give them some ability to be in control of the information and to specialize it for their purpose.
- Need to get producers on the podium. It would also be good to get some social scientists on the program.
- There is a strong need for a RISA on similar journal organization in the Midwest; given the economic impact of agriculture in the region alone it is a major oversight by NOAA; I would suggest a continuation of this type of meeting at least every other year; perhaps at a series of revolving Midwest locations.
- Most of the speakers were inconclusive. I don't come away with a sense of what
  the Midwest should do to react and adapt to climate change. I would like to see
  more of this.

- Annual agriculture and weather meetings, invite more USDA types, involve more agriculture related fields, and include individuals that can tell us an agriculture perspective with region to weather. Combine energy issues.
- Need to include more about soil and water and relationships to climate and agriculture
- No one discussed how we have changed the landscapes capacity to adsorb changes in climate.
- It would be great if people, like farmers, themselves are invited to talk and share their views

## **Economics and Policy**

Tuesday: Session 1

	Strongly Agree				Neit	ther Disagree nor Agree	D	Disagree		Strongly Disagree	Total Responses	Percent Responding
Interesting	7	40%	13	60%	2	22%	0	0%	1	0%	23	100%
Informative	10	60%	11	40%	1	11%	0	0%	1	0%	23	100%
Useful	7	40%	10	40%	5	20%	0	0%	1	0%	23	100%
Well Presented	8	40%	11	60%	2	22%	1	0%	1	0%	23	100%

#### **Overall Session Comments:**

- A bit too politically slanted stronger toward policy than economics.
- A larger scale overview may have been more appropriate.
- Glad you brought in congressional staffers very helpful to have info. Directly from them.
- Both speakers threw around terms / names of committees, programs, ect. without explaining expected audience to be up to speed on political arena.
- This is a very complicated subject it was great that you had actual staff from the U.S. committee ad speakers.
- Q and A was excellent.
- Informative enforces preconception that the government acts very slowly and tries to satisfy everyone without getting much done. –strange money handling practices.
- Very informative, but don't assume people are familiar with EISA and other previous bills or acts.
- I think it's great that you were able to have such experienced staff make this presentation!
- Wonderfully informative, lots of information, very worthwhile.
- Speakers were well-informed and presented well. They are very passionate about the subject great!

• Could have included a "How To" section on utilizing federal incentives.

# **Individual Speaker Comments:**

• Both outstanding.

Tuesday: Session 2

	Strongly Agree			Agree	Ne	ither Disagree nor Agree	Di	sagree		strongly Pisagree	Total Responses	Percent Responding
Interesting	6	40%	1	60%	0	0%	0	0%	0	0%	7	100%
Informative	6	60%	1	40%	0	0%	0	0%	0	0%	7	100%
Useful	4	40%	3	40%	0	20%	0	0%	0	0%	7	100%
Well Presented	5	40%	2	60%	0	0%	0	0%	0	0%	7	100%

## **Overall Session Comments:**

- Very complex mostly over my head.
- Excellent, informative, lively presentation.
- Great session.

**Individual Speaker Comments:** 

• Brian Jennings is a slick operator...

	Strongly Agree		Agree		Nei	ther Disagree nor Agree	D	isagree		Strongly Disagree	Total Responses	Percent Responding
Interesting	2	40%	1	60%	2	22%	1	0%	0	0%	6	100%
Informative	2	60%	2	40%	2	22%	0	0%	0	0%	6	100%
Useful	2	40%	1	40%	1	20%	2	0%	0	0%	6	100%
Well Presented	1	40%	3	60%	1	11%	1	0%	0	0%	6	100%

#### **Overall Session Comments:**

- Chad did a very nice job as moderator to ensure a lively discussion on Q & A.
- New area for me, I learned a few things.
- Presentations were phlegmatic.
- This session should have focused on organizing Midwest states to grow bio energy.
   We got a bunch of gobbly gook. This was a wasted opportunity: How will Midwest states compete against other states (e.g. CA, TN, FL) in bio energy growth?

## **Individual Speaker Comments:**

- Disappointed that Doherty rushed through the presentation to give Q&A time and then left before Q&A.
- Brendan was good, informative.
- Brenden: Don't bring him back. He's a bureaucrat that spends 40 minutes speaking gobbly gook.

Tuesday: Session 4

	Strongly Agree		Agree		Nei	ther Disagree nor Agree	D	Disagree		Strongly Disagree	Total Responses	Percent Responding
Interesting	2	66%	0	0%	1	34%	0	0%	0	0%	3	100%
Informative	1	33%	1	33%	1	34%	0	0%	0	0%	3	100%
Useful	1	33%	1	33%	0	0%	1	34%	0	0%	3	100%
Well Presented	1	33%	1	33%	1	34%	0	0%	0	0%	3	100%